

REMARKS

Applicant respectfully requests further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 1-43 were pending. Within the Office Action, Claims 1-43 have been rejected. By the above amendments, Claims 1, 3, 4, 6, 10, 12, 13, 15, 19, 21, 22, 24, 28, 30, 31, 33, 37, 39, 40, and 42 have been amended. Also, by the above amendments, Claims 2, 11, 20, 29 and 38 have been canceled and have been incorporated into the independent Claims 1, 10, 19, 29, 37, respectively. Accordingly, Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-43 are now pending.

Objections to the Claims

Within the Office Action, Claims 1, 3, 4, 6, 8, 10, 12, 13, 15, 17, 19, 21, 22, 24, 26, 28, 30, 31, 33, 35, 37, 39, 40 and 42 have been objected to for certain informalities. By the above amendments, Claims 1, 3, 4, 6, 10, 12, 13, 15, 19, 21, 22, 24, 28, 30, 31, 33, 37, 39, 40, and 42 have been amended to overcome the objections per the Examiner's suggestions.

The term "the document type definition extensions" in Claims 8, 17, 26, 35, and 37 has proper antecedent basis and has been consistently used in the specification. Accordingly, Claims 8, 17, 26, 35, and 37 remain unchanged.

The antecedent basis of the term "the document type definition extensions" for Claims 8, 17, 26, 35, and 37 is further described below:

Claim 8 depends on Claim 7, which further depends on Claim 1. Section d of Claim 1 introduces the term "to provide document type definition extensions," to provide the antecedent basis for the term in Claim 8.

Claim 17 depends on Claim 16, which further depends on Claim 10. Section b of Claim 10 introduces the term "providing document type definition extensions," to provide the antecedent basis for the term in Claim 17.

Claim 26 depends on Claim 25, which further depends on Claim 19. Section b of Claim 19 introduces the term "providing document type definition extensions," to provide the antecedent basis for the term in Claim 26.

Claim 35 depends on Claim 34, which further depends on Claim 28. Section iv of Claim 28 introduces the term "to provide document type definition extensions," to provide the antecedent basis for the term in Claim 35.

Objections to the Specification

Within the Office Action, the disclosure is objected to because of certain informalities. By the above amendments, these informalities on pages 4 and 9 have been amended per the Examiner's suggestions.

Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 1, 2, 7-11, 16-20, 25-29, 34-38 and 43 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. US 2002/0143819 to Han et al. (hereinafter "Han"). Applicants respectfully disagree with this rejection.

Han teaches a syndicator for disseminating Web services and other resources from service and content providers to service consumers, and for establishing and implementing a subscription agreement which specifies the terms upon which digital assets are provided to the subscribing consumers. Han further teaches that

to use a dynamic service, such as a web service, the subscriber reviews the catalog published by the syndication server, identifies a selected offered service, and then participates in a negotiation process supervised by the syndication server with respect to any negotiable terms of the selected offer. The business relationship or subscription is defined by the fixed terms of the offer, and the negotiated terms agreed upon between the provider and the subscriber, and may include price, billing policies, content redistribution rights, copyright licensing, **delivery** quantities and **channels**. [Hans, ¶ 0013, emphasis added]

Han then separately teaches hierarchical categories

optionally, specified in the descriptor is a set of deployment properties comprised of suggestions from the service provider to aid the service engine administrator during registration time. They include classification guidelines with hierarchical categories as well as flat keywords, and recommendations of caching parameters. [Han, ¶ 0087, emphasis added]

Han does not teach a hierarchical data content structure that comprises a plurality of channels.

In contrast to the teachings of Han, Applicants' Application is directed to devices and methods of content distribution, which may include one or more applications, a network, a communications layer, and an extension layer. The extension layer provides document type definition extensions to the communications layer. The document type definition extensions

define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure. *The hierarchical data content structure comprises a plurality of channels.*

Han does not teach *that the hierarchical data content structure comprises a plurality of channels*, which is claimed in Applicants' Application. Han only teaches classification guidelines with hierarchical categories for classifying the types of content. Han does not teach that the classification guidelines with hierarchical categories have a plurality of channels. Although Han separately teaches "channels," the channels taught by Han are paths for content delivery between the content subscribers and providers, and Han's delivery channels are neither data structure nor the method of organizing data. (Han teaches delivery channels: "that the negotiated terms, agreed upon between the provider and the subscriber, may include price, billing policies, content redistribution rights, copyright licensing, delivery quantities and channels.") Han does not teach *the hierarchical data content structure comprises a plurality of channels* as claimed in the present claims.

The independent Claim 1 is directed to a network device coupled to a network of devices. The network device of Claim 1 comprises one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels. As described above, Hans does not teach the hierarchical data content structure comprises a plurality of channels. For at least these reasons, the independent Claim 1 is allowable over the teachings of Han.

By the above amendments, Claim 2 has been canceled. Claims 7-9 are dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Hans. Accordingly, Claims 7-9 are also allowable as being dependent upon an allowable base claim.

The independent Claim 10 is directed to a method of providing data content between a first network device and one or more other network devices. The method of Claim 10 comprises providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, configuring the hierarchical data content structure into a plurality of channels, and transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As described above, Hans does not teach configuring the hierarchical data content structure into a plurality of channels. For at least these reasons, the independent Claim 10 is allowable over the teachings of Han.

By the above amendments, Claim 11 has been canceled. Claims 16-18 are dependent upon the independent Claim 10. As discussed above, the independent Claim 10 is allowable over the teachings of Hans. Accordingly, Claims 16-18 are also allowable as being dependent upon an allowable base claim.

The independent Claim 19 is directed to an apparatus for providing data content between a first network device and one or more other network devices. The apparatus of Claim 19 comprises means for providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, means for providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, means for configuring the hierarchical data content structure into a plurality of channels, and means for transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As described above, Hans does not teach means for configuring a hierarchical data content structure into a plurality of channels. For at least these reasons, the independent Claim 19 is allowable over the teachings of Han.

By the above amendments, Claim 20 has been canceled. Claims 25-27 are dependent upon the independent Claim 19. As discussed above, the independent Claim 19 is allowable over the teachings of Hans. Accordingly, Claims 25-27 are also allowable as being dependent upon an allowable base claim.

The independent Claim 28 is directed to a network. The network of Claim 28 comprises one or more network devices, and a first network device coupled to the one or more other network devices. The first network device comprises one or more applications, a network layer coupled to interface with the one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the first network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels. As described above, Hans does not teach that the hierarchical data content structure comprises a plurality of channels. For at least these reasons, the independent Claim 28 is allowable over the teachings of Han.

By the above amendments, Claim 29 has been canceled. Claims 34-36 are dependent upon the independent Claim 28. As discussed above, the independent Claim 28 is allowable over the teachings of Hans. Accordingly, Claims 34-36 are also allowable as being dependent upon an allowable base claim.

The independent Claim 37 is directed to a network device coupled to a network of devices. The network device of Claim 37 comprises one or more applications, a network layer coupled to interface with one or more other network devices, an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and extensions to the document type definitions, wherein document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels. As described above, Hans does not teach that the hierarchical data content structure comprises a plurality of channels. For at least these reasons, the independent Claim 37 is allowable over the teachings of Han.

By the above amendments, Claim 38 has been canceled. Claim 43 is dependent upon the independent Claim 37. As discussed above, the independent Claim 37 is allowable over the teachings of Hans. Accordingly, Claim 43 is also allowable as being dependent upon an allowable base claim.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 3, 12, 21, 30, and 39 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of U.S. Patent Application Publication No. 2003/0212608 to Cliff (hereinafter “Cliff”).

Claim 3 is dependent on the independent Claim 1. Claim 12 is dependent on the independent Claim 10. Claim 21 is dependent on the independent Claim 19. Claim 30 is dependent on the independent Claim 28. Claim 39 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, Claims 3, 12, 21, 30 and 39 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 5, 14, 23, 32, and 41 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff.

Claim 5 is dependent on the independent Claim 1. Claim 14 is dependent on the independent Claim 10. Claim 23 is dependent on the independent Claim 19. Claim 32 is dependent on the independent Claim 28. Claim 41 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, the dependent Claims 5, 14, 23, 32, and 41 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 6, 15, 24, 33, and 42 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff.

Claim 6 is dependent on the independent Claim 1. Claim 15 is dependent on the independent Claim 10. Claim 24 is dependent on the independent Claim 19. Claim 33 is dependent on the independent Claim 28. Claim 42 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the

teachings of Han. Accordingly, the dependent Claims 6, 15, 24, 33, and 42 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 4, 13, 22, 31, and 40 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff and further in view of U.S. Patent No. 7,062,546 to Kolar et al (hereinafter "Kolar").

Claim 4 is dependent on the independent Claim 1. Claim 13 is dependent on the independent Claim 10. Claim 22 is dependent on the independent Claim 19. Claim 31 is dependent on the independent Claim 28. Claim 40 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, the dependent Claims 4, 13, 22, 31, and 40 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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